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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,277	12/11/2001	Gunnar Hedin	980.1124US01	3024

38846 7590 03/10/2004

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225 SO. 6TH STREET
SUITE 3200
MPIS, MN 55402

EXAMINER	
VY, HUNG T	

ART UNIT	PAPER NUMBER
2828	

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/014,277	HEDIN ET AL.	
	Examiner	Art Unit	
	Hung T Vy	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 January 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Paul Ip

PAUL IP
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. In response to the amendment filed on 01/13/2004, claims 1-52 are pending in this application as result of addition of claims 51-52.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 22, 26, 43 and 50 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 26, and 34 of co-pending Applicant No. 10014278. Although the conflicting claims are not identical, they are not patentably distinct from each other because all applicant claim detector unit, fringe-producing optical element and control unit.

Claims 1, 22, 26, 43 and 50 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 19-20, and 29 of co-pending Applicant No. 10015151. Although the conflicting claims are not identical,

they are not patentably distinct from each other because all applicant claim detector unit, fringe-producing optical element and control unit.

The following table is matching claim:

10014277	10015151	10014278
1,26,43,50	1,19,20 and 29	1,34
22		26

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

35 U.S.C. § 102(e), as revised by the AIPA and H.R. 2215, applies to all qualifying references, except when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. For such patents, the prior art date is determined under 35 U.S.C. § 102(e) as it existed prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. § 102(e)).

4. Claims 1-4, 8, 16 and 26-50 are rejected under 35 U.S.C. § 102 (e) as being anticipated by Kanehira et al., U.S. patent No. 5,202,878.

Regarding claims 1-3, 8 and 50, Kanehira discloses a laser system, comprising: a laser (11) producing a beam of output light; a detector unit (43); and a fringe-producing optical element (42, 5) disposed in the beam of output light to direct a first portion of the beam of output light to the detector unit (43) as a second light beam, an

interference pattern being produced in the second light beam by the fringe-producing optical element (See fig. 4 and column 6, line 1-9), it is inherent that a second portion of the output light beam, different from the first portion, propagating from the fringe-producing optical element because when the light go through the optical element 5, the optical element 5 will shift the light to the second portion that different from the first portion; a light beam collimator (2) disposed on the beam of output light between the laser (11) and the fringe producing element (5,42). Further, it is inherent a control unit coupled to receive detector (43) information from the detector unit (43) and coupled to the laser (11) to control the wavelength of the beam of output light in response to the information received from the detector unit (43) because Kanehira et al. disclose for stable recording on column 2, line 9, therefore the laser has been controlled.

Regarding claims 4, and 16, Green discloses a system, wherein the second light beam includes a first component from a first side (5) of the fringe-producing optical element and a second component from a second side (42) of the fringe-producing optical element, the interference pattern being produces by interference between the first and second components (See fig 4 and column 6, line 1-9).

With respect to claims 26-49, the methods of stabilizing an operating frequency of an output light beam are considered as product by process steps.

Claim Rejections - 35 U.S.C. § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth insection 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5-7, 9-15, 17-25 and 51-52 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Kanehira et al., U.S. Patent No. 5,202,878 in view of Vihelmsson et al., U.S. Pub. No. 2002/0181519.

Regarding claims 18-25 and 51-52, Kanechira discloses all limitation of claim expect for an optical communications transmitter unit, a control unit and an optical communication receiver unit, and optical fiber communication link. However, Vilhemsson et al. discloses an optical communications system, comprising: an optical communications transmitter unit (1204) having one or more laser units (1204a, 1204n), at least one of the one or more laser units producing a laser output beam and having a wavelength stabilizing unit (140), the wavelength stabilizing unit including a detector unit (128 and 128, and a control unit coupled to receive detection signals from the detector unit and adapted to generate a laser frequency control signal for controlling wavelength of the at least one of the one or more laser units (1204a, 1204n)(See fig 1and paragraph 19), an optical communications receiver unit (1210); and an optical fiber (1208) communications link coupled to transfer optical communications signals from the optical communications transmitter unit to the optical communications receiver unit (See fig. 12 and fig.1), further comprising a series of fiber amplifiers (1216) disposed on the optical fiber (1208) communications link, the series of fiber amplifiers including at least one fiber amplifier unit (1216)(See fig 12), the optical communications transmission unit

(1202) includes at least two laser units (1204a,1204n) operating at different wavelengths and further comprising wavelength division multiplexing elements (1206) to combine light output from the at least two laser units (1204a,1204n) to produce a multiple channel optical communications signal coupled to the optical fiber (1208) communications link, the optical communications receiver unit (1210) includes wavelength division demultiplexing elements (1212) to separate the multiple channel optical communications signal (1214a, 1214b) into signal components of different wavelengths and further includes channel detectors to detect respective signal components (See fig 12). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Kalibjian to have the transmitter, receiver, optical fiber, division multiplexing elements and demulitplexing elements as taught by Vihelmsson et al. because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention.

Regarding claims 5-7, Kanechira discloses the claimed invention as respective portion of the interference pattern correspond to regions of different phase of the interference pattern, photo detector array elements (see fig. 4),

Regarding claim 9-15 and 17, Vilhemsson et al. discloses the claimed invention except for different kind of etalon. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have different kind of etalon, since it has been held to be within the general skill of a worker in the art to select a known

material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Citation of Pertinent References

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Pub to degertekin et al. discloses Mirointerferometer for Distance Measurements, U.S. Patent No. 6,643,025.

The patent to Farnsworth et al. discloses Optical servo For Magnetic Disk, U.S. Patent No. 5,121,371.

Response to Arguments

7. Applicant's arguments filed on 1/13/2004, with respect to the rejection(s)of claim(s) 1-52 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kanehira et al.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (703) 605-0759. The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (571) 212-1954. The fax numbers for the organization where this application or proceeding is assigned are (571) 212 -1941 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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Art Unit 2828

March 5, 2004